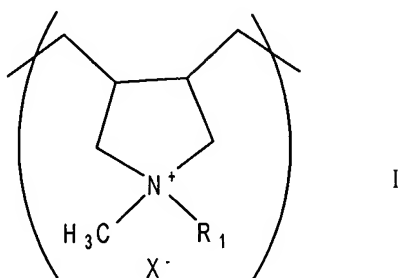


In the Claims

1. (Original) Water soluble branched block copolymers that comprise polymeric backbone chains of quaternary ammonium units of general formula I

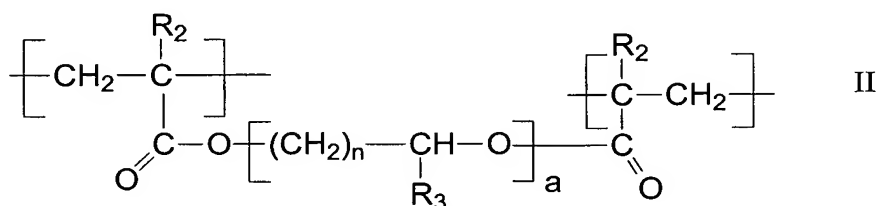


with

$R_1 = \text{H, alkyl (C}_1\text{-C}_8\text{)}$

X^- = a suitable counterion,

whereby the backbone chains are mutually linked together by way of the feature that poly(alkylene glycol) blocks, which comprise units of general formula II



with

$R_2 = \text{H, methyl,}$

$R_3 = \text{H, methyl, ethyl,}$

X^- = a suitable counterion

$n = 1$ through 3, and

$a = 6$ through 100,

replace individual units of general formula I, and the proportion by mass of the units of general formula II is between 0.01 and 20 % by weight based on the total block copolymer.

2. (Currently amended) ~~Block~~ A block copolymer in accordance with claim 1, ~~characterized by the feature that~~ wherein the molar mass of the block copolymer is greater than, or equal to, 250,000 g/mol, and especially preferably greater than, or equal to, 1,000,000 g/mol.

3. (Currently amended) ~~Block~~ A block copolymer in accordance with at least one of the claims 1 or 2, ~~characterized by the feature that~~ claim 1 wherein the intrinsic viscosity of the block copolymer is between 25 and 600 ml/g when measured in 1 N sodium chloride solution at 30 °C.

4. (Currently amended) ~~Block~~ A block copolymer in accordance with claim 3, ~~characterized by the feature that~~ wherein the intrinsic viscosity of the block copolymer is between 400 and 600 ml/g.

5. (Currently amended) ~~Block~~ A block copolymer in accordance with at least one of the claims 1 through 4, ~~characterized by the feature that~~ claim 1 wherein the Huggins constant is in the range between 0.3 and 0.5.

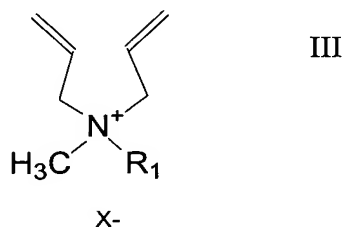
6. (Currently amended) ~~Block~~ A block copolymer in accordance with at least one of the claims 1 through 5, ~~characterized by the feature that~~ claim 1 wherein the polymeric backbone chain is derived, in the form of a unit of general formula I, from cyclic quaternary ammonium chlorides.

7. (Currently amended) ~~Block~~ A block copolymer in accordance with at least one of the claims 1 through 6, ~~characterized by the feature that~~ claim 1 wherein the poly(alkylene glycol) blocks are derived from compounds from the group of bis-acrylate esters or bis-methacrylate esters of poly(ethylene glycols), poly(propylene glycols), poly(butylene

glycols), and/or polytetrahydrofurans.

8. (Currently amended) ~~Block A block~~ copolymer in accordance with ~~at least one of the claims 1 through 7, characterized by the feature that claim 1 wherein~~ the counterions X^- are selected independently of one another from the group comprising chloride and methosulfate.

9. (Currently amended) ~~Process A process~~ for the preparation of water soluble branched block copolymers via the [free] radical polymerization of a quaternary diallylammonium compound of general formula III,

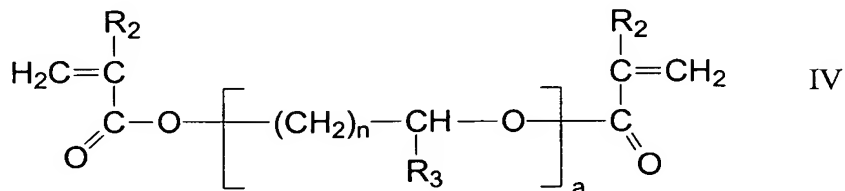


with

$R_1 = \text{H, alkyl (C}_1\text{-C}_8\text{)}$

$X^- = \text{a suitable counterion,}$

and bis-acrylate esters or bis-methacrylate esters of poly(alkylene glycols) of general formula IV,



with

$R_2 = \text{H, methyl,}$

$R_3 = \text{H, methyl, ethyl,}$

$X^- = \text{a suitable counterion,}$

$n = 1 \text{ through } 3, \text{ and}$

a = 6 through 100,

whereby the proportion by mass of the compound of general formula IV amounts to between 0.01 and 20 % by weight based on the two starting compounds.

10. (Currently amended) ~~Process~~ A process in accordance with claim 9, ~~characterized by the feature that~~ wherein diallyldimethylammonium chloride is used as the diallylammonium compound.

11. (Currently amended) ~~Process~~ A process in accordance with ~~at least one of the claims 9 or 10, characterized by the feature that~~ claim 9 wherein compounds from the group of bis-acrylate esters or bis-methacrylate esters of poly(ethylene glycols), poly(propylene glycols), poly(butylene glycols), and/or polytetrahydrofurans are used as the poly(alkylene glycol).

12. (Currently amended) ~~Process~~ A process in accordance with ~~at least one of the claims 9 through 11, characterized by the feature that~~ claim 9 wherein, as the initiator, use is made of a water soluble azo compound, or a redox system comprising peroxodisulfates and an amine.

13. (Currently amended) ~~Process~~ A process in accordance with claim 12, ~~characterized by the feature that~~ wherein, as the initiator, use is made of a redox system comprising peroxodisulfates and an alkoxylated amine surfactant.

14. (Currently amended) ~~Process~~ A process in accordance with ~~at least one of the claims 9 through 13, characterized by the feature that~~ claim 9 wherein the poly(alkylene glycol) is added during polymerization of the quaternary diallylammonium compound within the 0 to 80 % range of extents of reaction either in the form of one shot, or in portions, or

continuously.

15. (Currently amended) ~~Process~~ A process in accordance with ~~at least one of the claims 9 through 14, characterized by the feature that~~ claim 9 wherein the process takes place in aqueous solution.

16. (Currently amended) ~~Process~~ A process in accordance with ~~at least one of the claims 9 through 15, characterized by the feature that~~ claim 9 wherein the process takes place using the inverse emulsion procedure.

17. (Currently amended) Use of the block copolymers in accordance with ~~at least one of the claims 1 through 8~~ claim 1 as coagulating agents and flocculating agents for the separation of suspended solids.

18. (Original) Use in accordance with claim 17 for the manufacture of paper, the treatment of waste water, and the removal of water from sludge.

19. (New) A block copolymer in accordance with claim 2 wherein the intrinsic viscosity of the block copolymer is between 25 and 600 ml/g when measured in 1 N sodium chloride solution at 30 °C.

20. (New) A block copolymer in accordance with claim 19 wherein the intrinsic viscosity of the block copolymer is between 400 and 600 ml/g.